

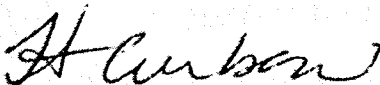
ANALYTICAL REPORT

Job Number: 580-9784-1

Job Description: Alaskan Copper

For:

Clean Harbors Environmental Services Inc
19320 Des Moines Memorial Dr
Bldg D, Suite 400
Seatac, WA 98148
Attention: Scott St. John



Heather Curbow
Project Manager I
heather.curbow@testamericainc.com
05/09/2008

cc: Jason Sullivan

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The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

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EXECUTIVE SUMMARY - Detections

Client: Clean Harbors Environmental Services Inc

Job Number: 580-9784-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
580-9784-1	SLAG-01				
<i>TCLP</i>					
Barium		0.048	0.010	mg/L	6010B
Chromium		0.061	0.025	mg/L	6010B

METHOD SUMMARY

Client: Clean Harbors Environmental Services Inc

Job Number: 580-9784-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL TAC	SW846 6010B	
Toxicity Characteristic Leaching Procedure	TAL TAC		SW846 1311
Acid Digestion of Aqueous Samples and Extracts for	TAL TAC		SW846 3010A
Mercury in Liquid Waste (Manual Cold Vapor Technique)	TAL TAC	SW846 7470A	
Toxicity Characteristic Leaching Procedure	TAL TAC		SW846 1311
Mercury in Liquid Waste (Manual Cold Vapor	TAL TAC		SW846 7470A

Lab References:

TAL TAC = TestAmerica Tacoma

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: Clean Harbors Environmental Services Inc

Job Number: 580-9784-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-9784-1	SLAG-01	Solid	04/30/2008 1000	04/30/2008 1135

Analytical Data

Client: Clean Harbors Environmental Services Inc

Job Number: 580-9784-1

Client Sample ID: SLAG-01

Lab Sample ID: 580-9784-1
Client Matrix: Solid

Date Sampled: 04/30/2008 1000
Date Received: 04/30/2008 1135

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-TCLP

Method:	6010B	Analysis Batch:	580-30884	Instrument ID:	SEA027
Preparation:	3010A	Prep Batch:	580-30845	Lab File ID:	N/A
Dilution:	1.0	Leachate Batch:	580-30809	Initial Weight/Volume:	50.0 mL
Date Analyzed:	05/02/2008 1317			Final Weight/Volume:	50.0 mL
Date Prepared:	05/02/2008 0810				
Date Leached:	05/01/2008 1113				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	RL
Silver		ND		0.020
Arsenic		ND		0.060
Barium		0.048		0.010
Cadmium		ND		0.010
Chromium		0.061		0.025
Lead		ND		0.030
Selenium		ND		0.10

7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-TCLP

Method:	7470A	Analysis Batch:	580-30866	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch:	580-30846	Lab File ID:	N/A
Dilution:	1.0	Leachate Batch:	580-30809	Initial Weight/Volume:	5 mL
Date Analyzed:	05/02/2008 1016			Final Weight/Volume:	50.0 mL
Date Prepared:	05/02/2008 0821				
Date Leached:	05/01/2008 1113				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	RL
Mercury		ND		0.0020

Quality Control Results

Client: Clean Harbors Environmental Services Inc

Job Number: 580-9784-1

Method Blank - Batch: 580-30845

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 580-30845/9-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/02/2008 1233
Date Prepared: 05/02/2008 0810

Analysis Batch: 580-30884
Prep Batch: 580-30845
Units: mg/L

Instrument ID: SEA027
Lab File ID: N/A
Initial Weight/Volume: 50.0 mL
Final Weight/Volume: 50.0 mL

Analyte	Result	Qual	RL
Silver	ND		0.020
Arsenic	ND		0.060
Barium	ND		0.010
Cadmium	ND		0.010
Chromium	ND		0.025
Lead	ND		0.030
Selenium	ND		0.10

Lab Control Spike/

Lab Control Spike Duplicate Recovery Report - Batch: 580-30845

Method: 6010B
Preparation: 3010A

LCS Lab Sample ID: LCS 580-30845/10-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/02/2008 1255
Date Prepared: 05/02/2008 0810

Analysis Batch: 580-30884
Prep Batch: 580-30845
Units: mg/L

Instrument ID: SEA027
Lab File ID: N/A
Initial Weight/Volume: 50.0 mL
Final Weight/Volume: 50.0 mL

LCSD Lab Sample ID: LCSD 580-30845/11-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/02/2008 1259
Date Prepared: 05/02/2008 0810

Analysis Batch: 580-30884
Prep Batch: 580-30845
Units: mg/L

Instrument ID: SEA027
Lab File ID: N/A
Initial Weight/Volume: 50.0 mL
Final Weight/Volume: 50.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Silver	97	97	80 - 120	0	20		
Arsenic	100	101	80 - 120	0	20		
Barium	100	101	80 - 120	0	20		
Cadmium	103	104	80 - 120	0	20		
Chromium	100	101	80 - 120	0	20		
Lead	102	102	80 - 120	0	20		
Selenium	99	100	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Clean Harbors Environmental Services Inc

Job Number: 580-9784-1

Method Blank - Batch: 580-30846

Lab Sample ID: MB 580-30846/7-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/02/2008 1006
Date Prepared: 05/02/2008 0821

Analysis Batch: 580-30866
Prep Batch: 580-30846
Units: mg/L

Method: 7470A Preparation: 7470A

Instrument ID: SEA029
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50.0 mL

Analyte	Result	Qual	RL
Mercury	ND		0.0020

Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 580-30846

Method: 7470A Preparation: 7470A

LCS Lab Sample ID: LCS 580-30846/8-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/02/2008 1009
Date Prepared: 05/02/2008 0821

Analysis Batch: 580-30866
Prep Batch: 580-30846
Units: mg/L

Instrument ID: SEA029
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50.0 mL

LCSD Lab Sample ID: LCSD 580-30846/9-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/02/2008 1013
Date Prepared: 05/02/2008 0821

Analysis Batch: 580-30866
Prep Batch: 580-30846
Units: mg/L

Instrument ID: SEA029
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	101	101	75 - 125	0	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

CHAIN OF CUSTODY RECORD

TEST AMERICA (STL)

PAGE OF

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☐ 2202 Genoa Red Bluff Road, Houston, TX 77034 Tel. (281) 478-7700 ☐ 5295 S. Garvey Road, Westmcrland, CA 92281 Tel. (760) 344-9400 ☐ Other

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OFFICE COPY

Login Sample Receipt Check List

Client: Clean Harbors Environmental Services Inc

Job Number: 580-9784-1

Login Number: 9784

Creator: Curbow, Heather

List Number: 1

List Source: TestAmerica Tacoma

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Client delivered sample directly to lab; no ice.
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	